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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/591,089	06/09/2000	John C. Ford	8064.002US0	2891

7590 07/05/2002

COUDERT BROTHERS
600 BEACH STREET
SAN FRANCISCO, CA 94109

EXAMINER

SZMAL, BRIAN SCOTT

ART UNIT	PAPER NUMBER
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3736

DATE MAILED: 07/05/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/591,089

Applicant(s)

FORD, JOHN C.

Examiner

Brian Szmaj

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

Response to Amendment

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Franck et al and Hardy et al in view Front et al.

Franck et al discloses a body mounted sensing system for stereotactic surgery and further discloses a body fixed coordinate system; a reference point detecting means; a referencing means for determining the position of the seed; a real time seed position determining means; markers affixed to selected parts of the body; memory means for storing earlier obtained patient anatomical data; a coordinate transforming means for identifying the body fixed coordinate system with reference to the earlier obtained patient anatomical data; a real time visual display of the needle with reference to the body fixed coordinate system; a display for displaying the real time data; a real time display of the patient data; and updating the earlier obtained patient data. See Abstract; Column 5, lines 44-67; Column 6; Column 7, lines 1-53; and Column 16, lines 5-19.

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Hardy et al discloses a three-dimensional simulation and computerized numerical optimization for dose delivery and treatment planning and further discloses the use of a dose calculating means for calculating in real time a radiation dose distribution within the selected volume; calculating a hypothetical radiation dose; and comparing the calculated radiation dose and a predetermined distribution plan to determine the placement of the next seed. See Column 6, lines 29-33; Column 7, lines 31-68; Column 8, lines 1-23, 48-66; and Column 12, lines 58-66.

Franck et al and Hardy et al however fail to disclose the use of an injection device having a hollow injection needle for depositing seeds; an energy transmitting means attached to the needle; a detector at a fixed position with respect to a fixed space coordinate system; and means for determining the position and orientation of the needle.

Front et al discloses a method and system for guiding a therapeutic instrument towards a target region inside a patient's body and further discloses a hollow injection needle for depositing seeds; an energy transmitting means attached to the needle; a detector at a fixed position with respect to a fixed space coordinate system; and means for determining the position and orientation of the needle. See Column 6, lines 19-67; and Column 7, lines 26-41.

Since Franck et al, Hardy et al and Front et al disclose means for stereotactic brachytherapy surgery, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the devices of Franck et al and Hardy et al to include the disclosure of an injection needle and means for locating it in vivo, as per the


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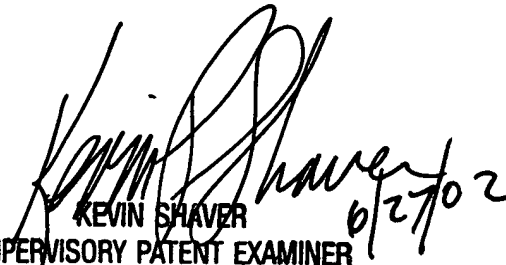
teachings of Front et al, since it is well known in the art that a needle is used to deliver brachytherapy seeds as well as a catheter during seed implantation.

Response to Arguments

4. Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Szmaj who's telephone number is (703) 308-3737, and group fax number is (703) 308-0758. The examiner can normally be reached on Monday-Friday, with second Fridays off.

BS 
June 25, 2002


KEVIN SHAVER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700
6/27/02